```
                          ┌──────────────────┐
                          │  Cooling system  │
                          └────────┬─────────┘
                                   │
                                   ▼
┌──────────────┐  ┌──────────────────┐  ┌──────────────┐  ┌──────────────┐
│ Voltage power│  │High frequency and│  │  Multi-unit  │  │Hydraulic     │
│and frequency │─▶│  high voltage    │─▶│   punching   │─▶│control       │
│   control    │  │    generator     │  │electrode     │  │system        │
└──────────────┘  └──────────────────┘  │  matrix      │  └──────────────┘
                                        └──────┬───────┘
                                               │
                                               ▼
┌──────┐  ┌──────────┐  ┌──────┐  ┌────────┐  ┌──────────┐  ┌──────┐  ┌──────┐
│Paper │  │Correcting│  │Stain │  │Punching│  │Air       │  │Speed │  │Paper │
│unwin-│─▶│ control  │─▶│cont- │─▶│        │─▶│permeabi- │─▶│      │─▶│windi-│
│ding  │  │          │  │rol   │  │        │  │lity      │  │      │  │ng    │
└──────┘  └──────────┘  └──────┘  └───┬────┘  └──────────┘  └──────┘  └──────┘
                                      │
                                      ▼
                                 ┌────────┐
                                 │ Dust   │
                                 │cleaning│
                                 └────────┘

┌──────────────────────────────────────────────────────────────────────────┐
│                          Control computer                                  │
└──────────────────────────────┬─────────────────────────────────────────────┘
                               │
                               ▼
                         ┌──────────────┐
                         │User interface│
                         └──────────────┘
```
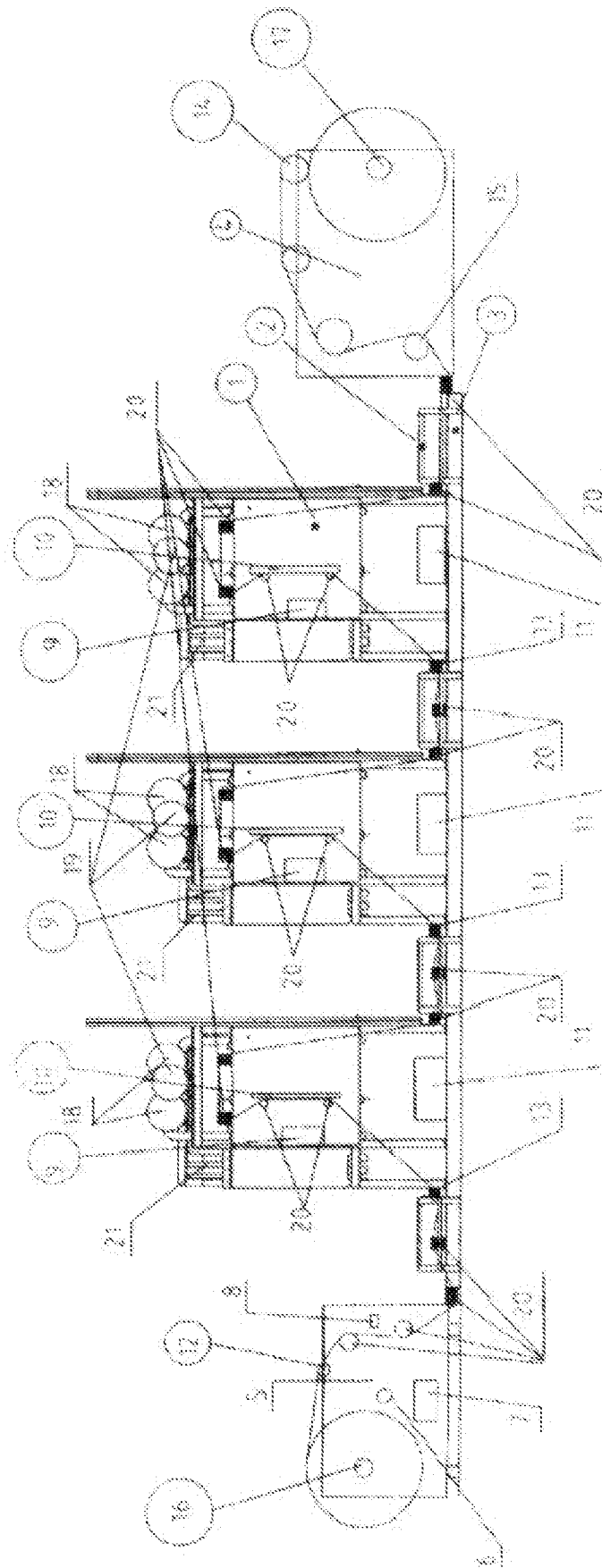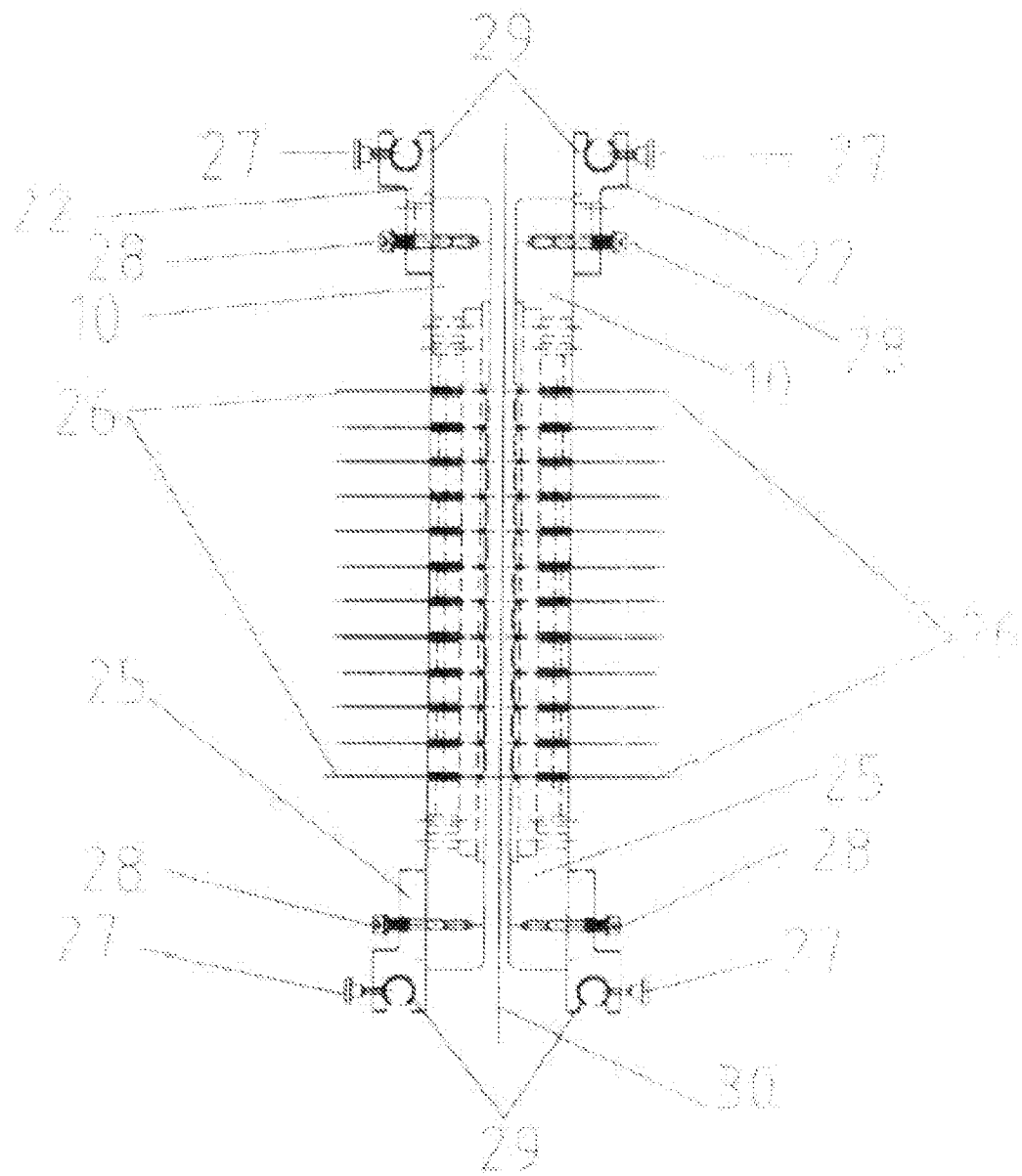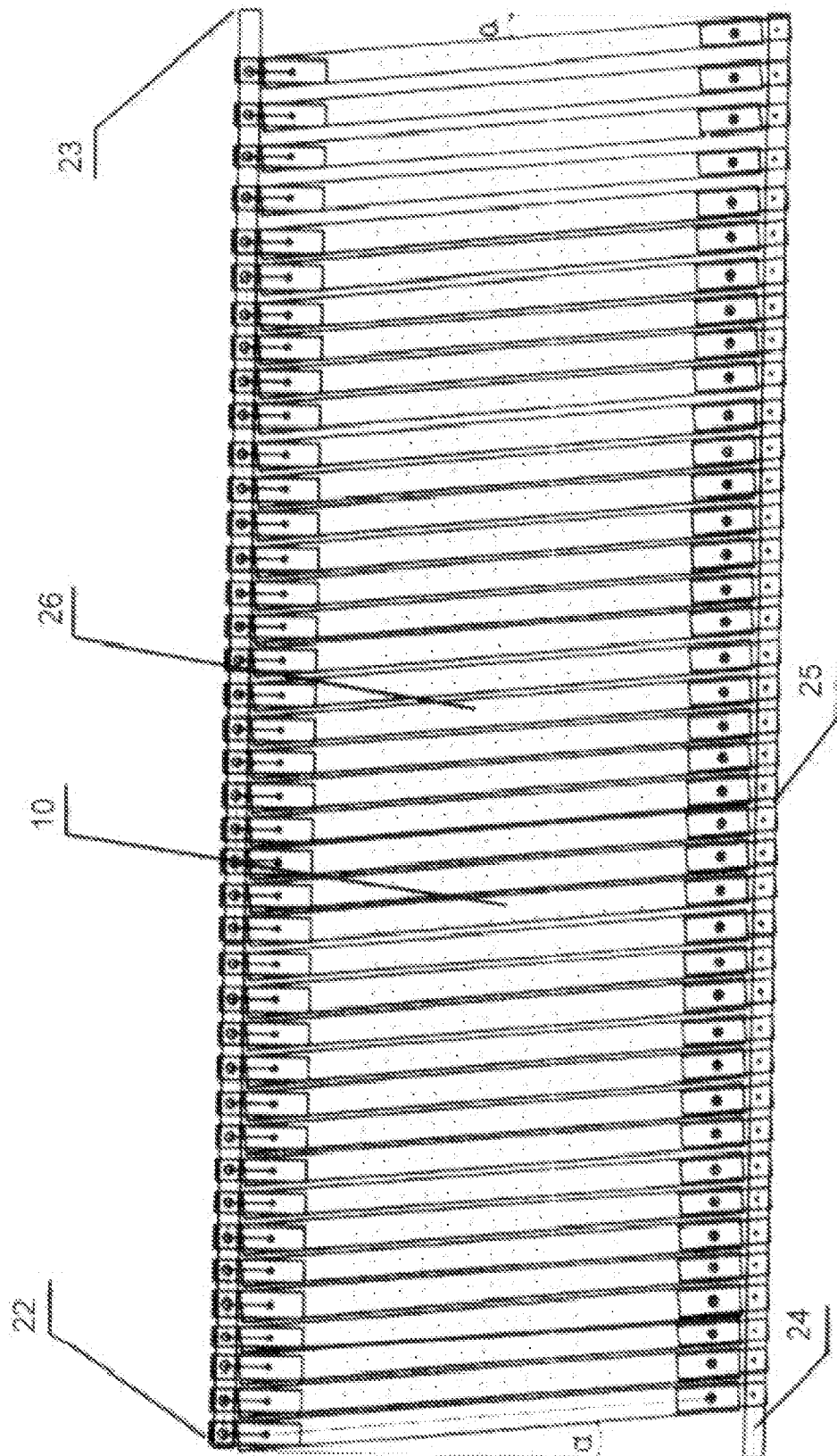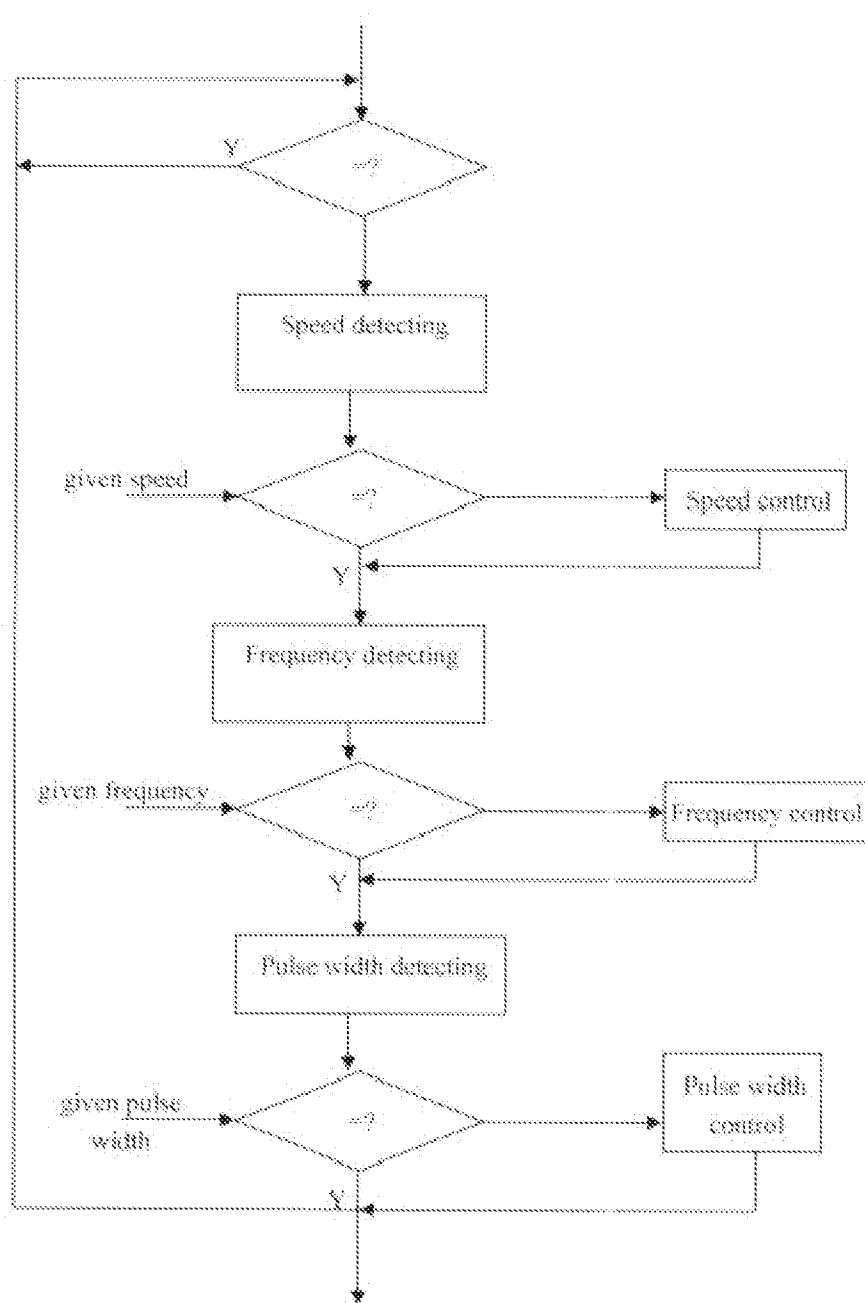
Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

given speed

Paper winding rotating speed control

Paper winding engine

Computing of moment of inertia of rotation

Diameter of paper winding

Feedback of speed detecting

Perforating control

Computing of moment of inertia of rotate

Diameter of paper unwinding

given strain

Paper unwinding rotating speed control

Paper unwinding engine

Feedback of strain

Figure 6